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Conference Abstract

Specimen Identifiers in Related Disciplines: What can Biodiversity Learn from and Offer to Other Fields?

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Abstract

Life sciences research, and even more specifically biodiversity sciences research, has yet to coalesece on a single system of identifiers for specimens (physical samples collected for research) or even a single set of standards for identifiers. Diverse identifier systems lead to duplication and ambiguity, which in turn lead to challenges in finding specimens, tracking and citing their usage, and linking them to data. Other research disciplines provide experience that biodiversity sciences could use to overcome these challenges. Earth sciences/geology may be the most advanced discipline in this regard, thanks to the use of the International GeoSample Number (IGSN) system, which was established to provide globally unique identifiers for geological samples. The original motivation of IGSN was to overcome duplication of sample numbers reported in the scientific literature and to support the correlation of observations on the same samples carried out by different laboratories and reported in different publications. The IGSN system is managed through a small set of 'allocating agents' who act on behalf of a national agency or community, under the overall coordination of the IGSN Organization - a volunteer group representing a mixture of research institutions and agencies. Similar to widely-recognized Digital Object Identifiers

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(DOIs), the primary requirement of an allocating agent is to maintain the mapping from an IGSN to a web 'landing page' corresponding to each sample. A standard (minimal) schema for describing samples registered with IGSN has been developed, but individual IGSN allocating agents will often supplement the base metadata with additional information. Other efforts are working on cross-disciplinary sample metadata schemas, but no single core standard has been agreed upon yet. An important part of the development of the IGSN system has been an engagement with scholarly publishers, with a goal of making each mention of an IGSN within a report or paper be a hyperlink, and also for links to other observations relating to the same sample to be automatically highlighted by the publisher.

Keywords

identifier, web, handle, IGSN, DOI, geology, registration, sample, specimen

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